

SECRETPIC/D-15/60
27 January 1960

MEMORANDUM FOR: Mr. Lampshire

SUBJECT: Dry Electrophotographic Process GTR-016

1. The proposal submitted by [redacted]
[redacted], has been reviewed by this office.

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2. There is a requirement for an electrostatic photographic system which seems to have the versatility that this system offers. The following features seem most desirable in both the collection and exploitation senses.

a. To be able to carry in a collection system a material which will not become photo sensitive and/or radiation sensitive until activated by electric current.

b. The possible elimination of the need for a shutter mechanism which has always contributed substantially to the vibration problems of any camera system.

c. Tremendous boost in ASA speed with extremely fine grain characteristics. According to the proposal, the granularity can be controlled so that it equals the finest high resolution emulsions available in photographic materials today with wide selective band width and phenomenal speed.

d. The capability of doing selective band width records from 2000 angstrom to 20,000 angstroms. As I understand it, narrow band spectro sensitivity can be created in the photo sensitive portion which will not effect the other layers of the sandwich. The Research and Development effort at the Photographic Intelligence Center has been looking for such a medium to begin experimental work in the field of airborne spectrophotometry. Through this means it will be possible to identify objects without relying on the five main characteristics which can be read with the human mind. These are: size (height, length, and width), shape, tone (contrast), texture, and shadow. With the proper tools this type of system could render millions of additional information units per unit area, more than normal aerial photography.

3. The proposal calls for an extensive development program extending over two years before any of the material could be made available for an operational system. Even though this is a time consuming delay, it is suggested that a visit by members of both your activity and ours should be arranged to investigate the possibility of this system further. It looks promising.

SECRETARTHUR C. LUNDAHL
Director

cc: [redacted]

Photographic Intelligence Center

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